



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,210	10/31/2005	Christian Krueger	268273US0PCT	8819
22850	7590	03/17/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
SHAH, MANISH S				
ART UNIT		PAPER NUMBER		
2853				
NOTIFICATION DATE		DELIVERY MODE		
03/17/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

# Office Action Summary

**Application No.**

10/529,210

**Applicant(s)**

KRUEGER ET AL.

**Examiner**

Manish S. Shah

**Art Unit**

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson et al. (# US 613890) in view of Schafheutle et al. (# US 5334690).

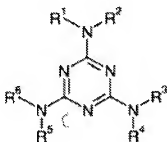
Carlson et al. discloses a method for printing on substrate by ink jet process comprising polyurethane copolymer, pigment and liquid medium (see Abstract). They also discloses a process for preparing colorant preparations for recording fluid comprising a mixture of polyurethane copolymers and one or more dispersing binders, water, and water soluble organic solvent, and inorganic colorant, which comprises mixing together in a ball mill (see Examples; see Abstract; column: 14, line: 15-25). They also discloses the recording liquid has a viscosity from 1 to 20 centipoise, and surface tension is from 25 to 60 dynes per centimeter (column: 15, line: 25-35). They also discloses that the mixing in ball mill occurs at a temperature between 0 to 250 degree C and pressure between 1 to 10 bar (see Examples). They also disclose that the colorant is in amount from 1 to 6%, and polyurethane is from 0.5 to 10 wt% (see Table: 1). They also discloses that the colorant preparation exhibits a pH between 7 and 9 (8.5) (column: 23, line: 1-10).

Carlson et al. differs from the claim of the present invention is that the recording fluid comprises the melamine derivative as a crosslinkers.

Schafheutle et al. teaches that to have high quality printed image, recording fluid includes the melamine derivative as a crosslinker (column: 7, line: 10-20).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the recording composition of Carlson et al. by the aforementioned teaching of Schafheutle et al. in order to have a high quality printed image.

Schafheutle et al. discloses all the limitation of the recording fluid. However, they didn't explicitly discloses that the melamine derivatives of the general formula as shown below.



Schafheutle et al. discloses the melamine derivative. Therefore inherently melamine derivative have same general formula as applicant claimed. Therefore, it is obvious that Wilson et al. discloses melamine derivative general formula.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to incorporate the particle size of colorant is between 0.05 to 0.2 micrometer, and polyurethane to melamine derivative weight ration 1:1 to 10:1, since it

has been held that it is not inventive to discovering and optimum value or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233 (CCPA1955).

### ***Response to Arguments***

2. Applicant's arguments filed 12/17/2008 have been fully considered but they are not persuasive. Applicant argued that the emulsifiable melamine resin teaches by the Schafheutle et al. can not further react with the polyurethane, which is not persuasive. Schafheutle et al. clearly teaches in the column: 7, line: 14 "the crosslinking agents in paint industry such as emulsifiable melamine resins.....". Therefore it clearly teaches that melamine resin act as crosslinking agent with polyurethane dispersion. Therefore it would have been obvious to combine the melamine resin of Schafheutle et al. with Carlson et al. recording fluid using polyurethane dispersion.

Applicant argued that the references do not disclose non-resin melamine derivatives that serve as thermal crosslinker. However applicant didn't claim "**non-resin**", they just claiming melamine derivatives. Therefore combination of the references reads on the present claim language.

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Manish S. Shah/  
Primary Examiner  
Art Unit 2853

/MSS/